

CHAPTER 6 CONSTRUCTION ADMINISTRATION

6.1 CHAPTER PURPOSE

This chapter addresses the permit application process, Notice to Proceed (NTP), and inspection and acceptance procedures for construction of commercial sites, subdivision streets (including industrial streets), and off-site improvements.

Implementation of these procedures will ensure that construction within the State right-of-way is in compliance with these *Standards and Regulations for Subdivision Streets and State Highway Access*, Standard Specification, Standards Construction Details, *Construction Manual* and other applicable DelDOT standards.

6.2 UTILITIES

Any proposed utility work within the right-of-way of a State-maintained roadway shall require a permit in accordance with the *Utilities Design Manual* prior to the start of construction.

Upon completion and acceptance of the subdivision or industrial streets, the utilities that are located within the State right-of-way shall be franchised in accordance with the existing countywide blanket agreement for each individual utility.

The proposed utilities within a new subdivision or industrial street shall be shown on the construction plans as outlined in Chapter 4.

Where feasible, underground utilities shall be placed behind the proposed curb line or in an established utility easement. Utilities that must be located within the dedicated right-of-way shall be installed in accordance with the DelDOT *Utilities Design Manual*.

Utility conflicts with future subdivision street construction shall be corrected by the utility company or the developer at no expense to the State. Any modification to the proposed utility locations shall be reflected on the as-built plans.

Requests for utility permits must be submitted with plans to the Public Works Engineer in the respective county as indicated in Figure 6-1.

Figure 6-1 DelDOT Public Works Engineers

New Castle County (DelDOT Canal District) Public Works Engineer 250 Bear-Christiana Road Bear, DE 19701
Kent County (DelDOT Central District) Public Works Engineer 930 Public Safety Blvd. Dover, DE 19901
Sussex County (DelDOT South District) Public Works Engineer P.O. Box 490 Georgetown, DE 19947

6.3 COMMERCIAL ENTRANCE PERMIT

6.3.1 APPLICATION PROCESS

This section outlines the application process for the construction of commercial entrances. Prior to issuance of permit for entrance construction the following documents must be submitted to the Public Works Engineer for review and approval:

1. An application for commercial entrance permit (see Appendix E).
2. Proof of ownership from the local land use agency (this must be an official document or on letterhead from the local land use agency) or an affidavit indicating property owner's name and Tax Map I.D. Number.
3. If the applicant is not the current property owner, the power of attorney form in Appendix E must be completed and included in the application. The Power of Attorney form is not used to issue the permit to someone other than the property owner. It just allows someone else to sign for the permit. The permit holder is still the property owner.
4. A copy of the site plan recorded by the local land use agency.
5. Two sets of construction drawings that have been approved by DelDOT's Subdivision Engineer.
6. The itemized construction cost estimate. See Figure 4-2 for a sample cost estimate.
7. A security in the amount of 100% of the approved construction cost estimate. The following forms of security shall be acceptable:
 - Surety Bond issued by a bonding company licensed in Delaware.
 - Commercial Letter of Credit issued by a lending institution licensed in Delaware.
 - Certified check with escrow agreement.

The approved security forms are provided in Appendix E.

8. Approval letter from the Conservation District, if construction occurs in Kent or Sussex County.

6.3.2 NOTICE TO PROCEED (NTP)

After review and approval of the documentation and security, the Public Works Engineer will evaluate the following items prior to issuance of permit for entrance construction which shall serve as the NTP:

1. Preconstruction Conference – The Public Works Engineer will determine if a preconstruction conference is needed prior to issuance of the NTP. The preconstruction conference shall be scheduled by the Public Works Engineer or his/her designee and attended by appropriate representatives of DelDOT, the developer, his/her engineer, and contractor, utility firms and such other agencies as may be deemed appropriate. Items to be discussed at this meeting may include, but are not limited to, the following:
 - Utilities.
 - Contractor and subcontractor.
 - Source of supplies.
 - Maintenance of traffic.
 - Removal of unsuitable materials.
 - Construction access.
2. Utility Coordination.
3. Material Testing.
4. Construction Schedule.

Once the Public Works Engineer is satisfied with the items listed above, the permit for entrance construction will be issued.

6.3.3 INSPECTION AND ACCEPTANCE

DelDOT reserves the right to inspect and approve any construction associated with the proposed entrance in accordance with Section 6.8 and the inspection procedures in DelDOT's *Construction Manual*.

DelDOT also reserves the right to make such changes, additions, and relocations to the approved entrance plans that may be considered necessary to ensure compliance with any applicable design standards and ensure the safety of the traveling public.

A final inspection shall be held by the inspector and may include the Public Works Engineer to verify that the entrance was constructed in accordance with DelDOT standards. Once DelDOT is satisfied with the construction, the inspector shall recommend final acceptance and the release of the security by the Public Works Engineer. The local land use agency shall be notified prior to final acceptance.

In the event of failure to perform the intended construction in accordance with the terms of the commercial entrance permit as determined by DelDOT, the developer shall receive written notice and have fourteen calendar days to provide DelDOT with an approved schedule for completion. If a schedule for completion has not been received within the specified time period, the developer shall receive a second written notice and have an additional seven calendar days to meet in person with DelDOT and present an approved schedule for completion.

Should the developer fail to provide a satisfactory construction schedule or fail to comply with the approved completion schedule, DelDOT shall withdraw its permit and shall have the right to utilize the 100% construction security to correct the condition. All costs incurred in the removal and/or correction of defective workmanship and/or materials over and above the construction security shall be borne by the applicant.

6.3.4 MAINTENANCE

After the entrance has been constructed to the satisfaction of DelDOT and the commercial entrance permit has been issued, the property owner shall be responsible for the repair of any deficiencies within the entrance for a period of one year. Deficiencies identified by DelDOT

shall be repaired in accordance with DelDOT's *Construction Manual*. If repairs are not initiated within three months of notification, then DelDOT shall void the commercial entrance permit and access to the property shall be denied.

DelDOT shall assume the responsibility for future normal maintenance of the entrance within the shoulder area and any necessary cleaning or replacing of drainage pipe, and guardrail repair within the right-of-way. Entrance appurtenances beyond the edge of shoulder are the responsibility of the property owner for maintenance. This includes any traffic control signs (i.e., Stop or Yield) that may need future maintenance. Should the applicant, heirs, or assigns desire to alter or reconstruct any portion of the entrances or appurtenances, application for a new permit must be submitted to DelDOT for approval.

6.4 SUBDIVISION STREETS

6.4.1 APPLICATION PROCESS

This section outlines the application process for the construction of new subdivision streets dedicated for public use and intended for acceptance into State maintenance. Prior to issuance of a NTP the following documents must be submitted to the Public Works Engineer for review and approval:

1. The subdivision site plans recorded by the local land use agency.
2. Letter from the DelDOT Subdivision Engineer stating that the entrance plans are substantially complete and a preconstruction conference can be scheduled by the Public Works Engineer.
3. Subdivision Construction drawings with most recent revisions (six copies).
4. A security in the amount of 10% of the estimated street construction cost using the security determination chart in the construction agreement for subdivision streets (see Appendix F). Hot mix prices shall be

itemized and submitted with the construction agreement.

5. A security in the amount of 100% of the estimated cost to construct the main entrance. This security applies to construction of auxiliary lanes, roadway widening, and other modifications to existing State-maintained roadways. If no auxiliary lanes, roadway widening, or other improvements are required then this portion of the security may be waived.

The following forms of security shall be acceptable:

- Surety Bond issued by a bonding company licensed in Delaware.
- Commercial Letter of Credit issued by a lending institution licensed in Delaware.
- Certified check with escrow agreement.

The approved security forms for subdivision streets are provided in Appendix F. The security forms for subdivision entrances are the same forms for the commercial entrances.

6. Completed construction agreement for subdivision streets (see Appendix F).

6.4.2 NOTICE TO PROCEED (NTP)

After review and approval of the construction agreement and security, the Public Works Engineer will address the following items prior to issuance of the NTP:

1. Preconstruction Conference – The Public Works Engineer will determine if a preconstruction conference is needed prior to issuance of the NTP. The preconstruction conference shall be scheduled by the Public Works Engineer or his/her designee and attended by appropriate representatives of DelDOT, the developer, the developer's engineer and contractor, utility firms and such other agencies as may be deemed appropriate. Items to be discussed at this meeting may

include, but are not limited to, the following:

- Contractor and subcontractor.
- Source of supplies.
- Street construction schedule.
- Maintenance of traffic.
- Removal of unsuitable materials.
- Security agreement.
- Utility Coordination.
- Material Testing.
- Construction Schedule.

Following approval of the required submissions and a successful preconstruction conference, the Public Works Engineer shall issue the NTP, allowing the developer to proceed with clearing and grading on bonded streets. No construction materials (such as graded aggregate base course, hot-mix or drainage pipe) can be placed until after the construction plans of the subdivision drawings are stamped "APPROVED" by the DelDOT Subdivision Engineer.

The developer may proceed with clearing and grading at its own risk for a period of thirty calendar days, prior to final approval of subdivision construction plans by the DelDOT Subdivision Engineer. If final approval is not received within thirty calendar days of the NTP, all construction activities shall be stopped and the NTP shall be withdrawn.

Once the DelDOT Subdivision Engineer approves the subdivision construction drawings, two complete full-size and two complete half-size sets of construction drawings shall be forwarded to the Public Works Engineer. The drawings must have the approval stamp of the DelDOT Subdivision Engineer.

Upon receipt of approved construction drawings, the Public Works Engineer will issue a final "Notice to Proceed" letter, allowing the Developer to proceed with permanent street construction within the subdivision.

Construction of the entrance to the subdivision shall be started prior to the 50th building permit or 25% of the subdivision whichever is less. Once

construction has started on the roadway it must be actively pursued until completed.

6.4.3 INSPECTION AND ACCEPTANCE

DelDOT reserves the right to inspect and approve any construction associated with the proposed subdivision in accordance to Section 6.8 and the inspection procedures outlined in the *DelDOT Construction Manual*.

DelDOT also reserves the right to make such changes, additions, and relocations to the approved plans that may be considered necessary to ensure compliance with any applicable design standards and ensure the safety of the traveling public.

Upon completion of the subdivision streets within a given phase of construction, if phased, the developer shall request a final inspection of the work. The final inspection shall be attended by appropriate DelDOT personnel and shall generate a final punch list of outstanding items that must be completed by the developer.

Upon completion of the punch list to the satisfaction of DelDOT and the submission of the following documents, the Public Works Engineer shall recommend that the streets be accepted into the State maintenance system.

- a. As-built construction plans – The as-built construction plans shall be a print of the approved construction plan annotated in red to show all revisions necessitated by field conditions. The developer's engineer shall prepare this plan and submit it to the Public Works Engineer or his/her designee prior to the issuance of the letter recommending acceptance.

In addition, the developer's engineer shall also submit an electronic plan version of the as-built construction plans for the entire subdivision to the Public Works Engineer or his/her designee. See Chapter 4 for electronic plan submission requirements.

- b. A letter from the local land use agency stating that all work required by the land use agency is complete.
- c. A letter from the local Conservation District stating that all work required by the conservation District is complete (if applicable).
- d. A letter from the homeowner's association providing contact information.
- e. A letter to DelDOT from the developer releasing DelDOT from any claims as a result of any unpaid bills or obligations. An affidavit releasing DelDOT is to be fully executed and furnished to the District Office prior to the issuance of the letter recommending acceptance. See Appendix F for a sample affidavit.

Should the developer fail to satisfactorily complete subdivision street construction in accordance with the construction agreement for subdivision streets as determined by DelDOT, the developer shall receive written notice and have fourteen calendar days to provide DelDOT with an approved schedule for completion. If a schedule for completion has not been received within the specified time period, the developer shall receive a second written notice and have an additional seven calendar days to meet in person with DelDOT and present an approved schedule for completion.

Should the developer fail to provide a satisfactory street construction schedule or fail to comply with the approved completion schedule, DelDOT may withdraw its approval to construct the affected subdivision streets and shall draw upon the security as outlined in the security agreement.

Withdrawal of subdivision street construction approval for failure to complete the streets shall be cause to increase the required construction security from 10% to 100% on future subdivision street construction projects requested by the defaulting applicant.

Following completion of street construction and submission of required documentation to the satisfaction of the District Engineer, the

Subdivision Engineer shall prepare an “Acceptance Drawing and an Acceptance Statement” and recommend acceptance of the streets. The Subdivision Engineer shall approve and sign the acceptance documents for DelDOT and shall notify the local land use agency that the streets have been accepted.

Upon acceptance of the streets into the State maintenance system, an entrance permit shall be required for each new entrance to the street as outlined in Chapter 7. The applicant shall be responsible for damage to the curb, gutter, shoulders, and drainage affected by any entrance construction.

In subdivisions where residential streets and cul-de-sacs have been completed and the collector street serving them is complete except for the final lift of hot-mix, the developer shall submit the completed residential streets and cul-de-sacs for acceptance. Additionally, the developer shall provide:

- One-hundred percent security for the cost to complete the collector street.
- A letter to the District Office requesting acceptance of the submitted streets.

6.4.3.1 Road Number Assignment

The Planning Section shall assign maintenance road numbers to the subdivision streets following acceptance by DelDOT.

6.4.4 MAINTENANCE

Upon acceptance of the streets into the State maintenance system, DelDOT agrees to the following limited maintenance responsibilities:

1. DelDOT agrees to maintain the following elements within the dedicated right-of-way or easements:
 - a. The paved portion of the roadway.
 - b. Curbing and gutters.
 - c. Closed drainage system including inlets and pipes that conveys roadway runoff.

- d. Open ditch systems, including entrance pipes, located within the right-of-way and easements that conveys roadway runoff.
 - e. Guardrails.

2. While retaining all controls over the dedicated right-of-way, DelDOT assumes no responsibility for:

- a. Maintenance of grass and plantings in any portion of the right-of-way, including landscaped islands and medians.
 - b. Removal of silt and debris that have a minimal impact on the drainage system in open swales, gutters and inlet openings.
 - c. Removal and maintenance of future improvements by residents, such as landscaping, underground sprinklers, signs, etc. not shown on the as-built plans.
 - d. Maintenance of sidewalks, lighting, and entrance amenities.
 - e. Actual removal of snow and ice – DelDOT offers reimbursement of snow removal expenses through the “Snow Reimbursement Program.”

Alleys should be used within the subdivision street layout in accordance with appropriate subdivision design principles and the requirements of local land use ordinances. While DelDOT encourages the appropriate use of alleys in subdivision street layout, DelDOT shall not accept any maintenance responsibilities for alleys in the public right-of-way.

A permit from DelDOT shall be obtained for any modification to the roadway, curb, sidewalk, or drainage ditches within the right-of-way.

6.5 INDUSTRIAL STREETS

6.5.1 PERMIT APPLICATION PROCESS

The permit application process for industrial streets follows the same procedures as subdivision streets presented in Section 6.4.1.

6.5.2 NOTICE TO PROCEED (NTP)

Requirements for obtaining a NTP for industrial streets follow the same procedures as subdivision streets presented in Section 6.4.2.

6.5.3 INSPECTION AND ACCEPTANCE

The developer is responsible for providing inspection of the bonded industrial park streets as per the construction agreement. The developer's engineer shall be certified by the DelDOT Consultant Control Committee to perform construction engineering.

Upon completion of the industrial park streets within a given phase of construction, if phased, the developer shall request a final inspection of the work. The final inspection shall be attended by appropriate DelDOT personnel and shall generate a final punch list of outstanding items that must be completed by the developer.

Upon completion of the punch list to the satisfaction of DelDOT and the submission of the following documents, the Public Works Engineer shall recommend that the streets be accepted into the State maintenance system.

- a. As-built construction plans – The as-built construction plans shall be a print of the approved construction plan annotated in red to show all revisions necessitated by field conditions. The developer's engineer shall prepare this plan and submit it to the Public Works Engineer or his/her designee prior to the issuance of the letter recommending acceptance.

In addition, the developer's engineer shall also submit an electronic plan version of the as-built construction plans for the entire industrial park streets to the Public Works Engineer or his/her designee. See Chapter 4 for electronic plan submission requirements.

- b. A letter from the local land use agency stating that all work required by the land use agency is complete.

- c. A letter from the local Conservation District stating that all work required by the conservation District is complete (if applicable).
- d. A letter to DelDOT from the developer releasing DelDOT from any claims as a result of any unpaid bills or obligations. An affidavit releasing DelDOT is to be fully executed and furnished to the District Office prior to the issuance of the letter recommending acceptance. See Appendix F for a sample affidavit.

Should the developer fail to satisfactorily complete industrial park street construction in accordance with the construction agreement for industrial park streets as determined by DelDOT, the developer shall receive written notice and have fourteen calendar days to provide DelDOT with an approved schedule for completion. If a schedule for completion has not been received within the specified time period, the developer shall receive a second written notice and have an additional seven calendar days to meet in person with DelDOT and present an approved schedule for completion.

Should the developer fail to provide a satisfactory street construction schedule or fail to comply with the approved completion schedule, DelDOT may withdraw its approval to construct the affected industrial park streets and shall draw upon the security as outlined in the security agreement.

Withdrawal of industrial park street construction approval for failure to complete the streets shall be cause to increase the required construction security from 10% to 100% on future industrial park street construction projects requested by the defaulting applicant.

Following completion of street construction and submission of required documentation to the satisfaction of the District Engineer, the Subdivision Engineer shall prepare an "Acceptance Drawing and an Acceptance Statement" and recommend acceptance of the streets. The Engineer shall approve and sign the acceptance documents for DelDOT and shall

notify the local land use agency that the streets have been accepted.

Upon completion of all aspects of the initial street construction to the satisfaction of the inspecting engineer, a first final inspection shall be held. After the first final inspection, a three-year waiting period is required prior to the acceptance of said streets into DelDOT's maintenance system. At this time a second final inspection shall be held to ensure that all punch list items from the first final inspection have been corrected and that the streets as designed have held up to the anticipated traffic loading. The three-year waiting period is required by DelDOT because of the significantly higher traffic volumes that are typically generated by an industrial park type development and the heavier vehicle loadings that are experienced by the high percentage of truck traffic.

Should the developer fail to satisfactorily complete industrial street construction in accordance with the construction agreement for industrial streets as determined by DelDOT, the developer shall receive written notice and have fourteen calendar days to provide DelDOT with an approved schedule for completion. If a schedule for completion has not been received within the specified time period, the developer shall receive a second written notice and have an additional seven calendar days to meet in person with DelDOT and present an approved schedule for completion.

Should the developer fail to provide a satisfactory street construction schedule or fail to comply with the approved completion schedule DelDOT may withdraw its approval to construct the affected streets and shall draw upon the security as outlined in the security agreement.

6.5.4 MAINTENANCE

Upon acceptance of the streets into the State maintenance system, DelDOT agrees to the following limited maintenance responsibilities:

1. DelDOT agrees to maintain the following elements within the dedicated right-of-way or easements:
 - a. The paved portion of the roadway.
 - b. Curbing and gutters.
 - c. Closed drainage system including inlets and pipes that conveys roadway runoff.
 - d. Open ditch systems, including entrance pipes, located within the right-of-way and easements that conveys roadway runoff.
 - e. Guardrails
2. While retaining all controls over the dedicated right-of-way, DelDOT assumes no responsibility for:
 - a. Maintenance of grass and plantings in any portion of the right-of-way, including landscaped islands and medians.
 - b. Removal of silt and debris that have a minimal impact on the drainage system in open swales, gutters and inlet openings.
 - c. Removal and maintenance of future improvements by residents, such as landscaping, underground sprinklers, signs, etc. not shown on the as-built plans.
 - d. Maintenance of sidewalks, lighting, and entrance amenities.
 - e. Actual removal of snow and ice.

6.6 OFF-SITE IMPROVEMENTS (PUBLIC ROAD CONSTRUCTION)

6.6.1 APPLICATION PROCESS

During the land development process, DelDOT may determine the need for road improvements beyond the entrance to the site. These improvements shall be required as part of the entrance approval. The developer shall enter into an agreement with DelDOT outlining the implementation of the improvements. This may be for the actual design, construction, and inspection of the improvements, or monetary

contribution for the actual construction of the improvements. This agreement shall be executed prior to entrance plan approval. See Appendix B for regulations regarding improvements requiring new rights-of-way.

If a proposed development triggers the need for improvement to the abutting State-maintained roadway beyond the entrance, the following documents shall be obtained and submitted prior to the start of construction.

1. Approved roadway construction drawings (six copies). Refer to DelDOT's publications and forms web page for the checklist for offsite plan development (www.DelDOT.gov).
2. Construction agreement for public roads (off-site improvements).
3. The itemized cost estimate. See Figure 4-2 for a sample cost estimate.
4. Prior to DelDOT issuing a NTP for the construction of the offsite improvements the developer shall provide DelDOT with a security in the amount of 100% of the estimated construction cost as approved by DelDOT.

The following forms of security shall be acceptable.

- Surety Bond issued by a bonding company licensed in Delaware.
- Commercial Letter of Credit issued by a lending institution licensed in Delaware.
- Certified check with escrow agreement.

The approved security forms are provided in Appendix H.

6.6.2 NOTICE TO PROCEED (NTP)

The following requirements must be fulfilled before DelDOT issues a NTP for off-site improvements:

1. Approved construction plans and estimates.
2. Executed construction agreement for public roads (off-site improvements) by the Subdivision Engineer for DelDOT.
3. Security for the proposed work.
4. A preconstruction conference shall be scheduled by the Public Works Engineer or construction group engineer and attended by appropriate representatives of DelDOT, the developer, the developer's engineer and contractor, utility firms and such other agencies as may be deemed appropriate. Items to be discussed at this meeting may include but are not limited to the following:
 - Utilities.
 - Contractor and subcontractor.
 - Source of supplies.
 - Street construction schedule.
 - Maintenance of traffic.
 - Removal of unsuitable materials.
 - Construction access. Copy of construction contract between the developer and his contractor if applicable.
 - Security agreement.

Following approval of the required submissions and a successful preconstruction conference, the Public Works Engineer or DelDOT's Construction Group Engineer shall issue the NTP.

6.6.3 INSPECTION AND ACCEPTANCE

Off-site improvement projects are divided into three levels based on their size and impact on the abutting State-maintained roadway. This categorization helps DelDOT identify the level of involvement with each project, and what division will manage the construction of the project. Figure 6-2 summarizes the three levels of classification for off-site inspection and acceptance:

Figure 6-2 Off-Site Inspection and Acceptance

Level	AADT	Impact	Inspection
Level I	< 2000 veh/day	Construction has no or minimal impact to the traveling public.	DelDOT will provide inspection for Level I projects through the Public Works Section in accordance with the construction agreement and DelDOT's <i>Construction Manual</i> .
Level II	2000 – 10,000 veh/day	Construction has some impact to the traveling public.	An engineering firm hired by the developer performs inspection. The developer's engineer shall be certified by the DelDOT Consultant Control Committee to perform construction inspection and engineering. DelDOT's Public Works will coordinate construction inspection.
Level III	>10,000 veh/day	Construction has significant impact to the traveling public	The developer will be required to enter into a construction inspection agreement with an inspection firm currently under contract with DelDOT. Division of Transportation Solutions will coordinate inspection.

Note: All work shall be in accordance with the construction agreement and DelDOT's Construction Manual.

The following roles and responsibilities shall apply to both Level II and III impacts:

1. Project Assignment of Personnel

Project staff shall be adequate in number, with appropriate qualifications to control the work in a manner consistent with sound engineering and construction practices. A project supervisor, assigned by the inspecting engineering firm, shall administer the project on behalf of DelDOT and shall be responsible for the implementation of all applicable practices and procedures outlined in Part D "Field Practices and Procedures" of DelDOT's *Construction Manual*. Failure to comply shall result in removal of project staff and stoppage of all construction activities until project staffing requirements are met.

The presence of inspection personnel is required during any and all roadway work within existing

or proposed public right-of-way at all times. If the inspecting engineering firm fails to provide required project personnel, DelDOT will provide construction inspection personnel. DelDOT's total construction inspection personnel costs, including salaries, benefits, and related expenses shall be completely funded by the developer. Any changes in key project management personnel shall be immediately brought to the attention of DelDOT.

2. Inspection

During the progress of all associated construction work under the project, the inspecting engineering firm shall furnish appropriate field inspection of workmanship and material usage at the site of the work during the period that the work is actually being performed to determine and verify conformity of all work to the plans and specifications. This shall include inspection of construction equipment to determine conformity

with the contract specifications outlined in Part D “Field Practices and Procedures” of DelDOT’s *Construction Manual*.

DelDOT will provide materials inspection and testing services. This work shall include, but not be limited to, concrete testing, asphalt concrete testing, and soils testing. The inspecting engineering firm is responsible for documenting material inspections and tests that have been performed at the project site. This includes the collection of all load tickets for review. All loads must comply with the established DelDOT load restrictions.

3. Field Reports

All inspectors shall submit written daily reports and field notes to the project supervisor. These reports shall be retained in the field files for reference. A project diary shall also be maintained for the project.

4. Progress Meetings and Schedule

The project supervisor shall schedule a monthly progress meeting. The required attendees include:

- DelDOT construction.
- Developer representative.
- Inspecting engineering firm.
- Contractor.
- Project administration.

A bi-monthly construction schedule is required to be completed by the contractor and submitted by the project supervisor to the DelDOT Construction Group Engineer on the last day of every workweek during project construction.

5. Directives and Coordination

General – The Contractor is required to comply with any and all directives made by the project supervisor. Failure to comply shall result in the project supervisor contacting, in writing, DelDOT’s Construction Engineer. Based on the severity of the infraction, failure to comply may also result in a DelDOT-directed stoppage of work on the project.

Maintenance of Traffic (MOT) / Erosion and Sediment Control (E&S) – The project supervisor shall be responsible for the coordination of all MOT and all requests that may be made by DelDOT personnel. These requests are to be implemented immediately and considered part of the project. A failure to comply may result in a DelDOT-directed stoppage of work on the project.

Public Relations – The project supervisor shall contact the Public Relations Section with contact information pertaining to the work prior to the start of construction. The project supervisor shall coordinate the response to any public inquiry with DelDOT’s Construction office.

Two-Week Advanced Notice – The project supervisor shall coordinate any major MOT operations with DelDOT’s Construction office. Two weeks advanced notice shall be provided to DelDOT’s Construction office prior to any anticipated road closure or traffic shift. A failure to comply may result in a DelDOT-directed stoppage of work on the project.

6. As-Built Plans

For the preparation of as-built plans, the inspecting engineering firm shall retain one set of record prints of the construction plans. These shall be kept up-to-date by the substitution of revised plan sheets by marks for minor changes that have been made, and by notes from the inspector’s diary. The as-built plans shall show in red ink any alterations made in foundations; locations, lengths and elevations of pipe culverts; side ditches, ditch paving, and other drainage items added or altered; final checked stationing; and all other significant variations from the original plans. As-built plans will be required as part of the final acceptance of the off-site improvements.

7. Shop Drawings

The project supervisor shall handle the distribution and coordination for review of shop drawings. DelDOT must approve all shop drawings.

Upon completion of all aspects of the initial street construction to the satisfaction of the inspecting engineer, a first final inspection shall be held.

Upon completion of all work to the satisfaction of DelDOT, the developer will be released of liability and the roadway work will be accepted. The local land use agency shall be notified when the work has been accepted.

6.7 CONSTRUCTION RESPONSIBILITIES

The following outlines the applicant's construction responsibilities:

1. The applicant shall furnish all materials and assume all costs of construction deemed necessary by the Public Works Engineer or the Construction Engineer in accordance with the construction permit and the approved plans.
2. All material and construction required to construct the entrance facility shall be in accordance with DelDOT's current *Standard Specifications*.
3. The entrance improvements for a commercial site must be complete prior to the issuance of the certificate of occupancy by the local land use agency.
Construction of the entrance to the subdivision shall be started prior to the 50th building permit or 25% of the subdivision whichever is less. Once construction has started on the roadway it must be actively pursued until completed.
4. In the event that poles, lights, signs, traffic signals, or other appurtenances need to be moved for an approved entrance, the applicant shall pay all costs involved in the relocation. The applicant shall resolve with the affected utility any required utility relocation, the time of moving and the required reimbursement.
5. In the event that a mailbox needs to be relocated, DelDOT authorizes the developer to relocate the mailbox with prior notification to the property owner. The developer shall be responsible for any damage to the mailbox and through coordination with the local postal service,

shall be required to maintain the mail service at all times.

6. After the construction has been completed to the satisfaction of DelDOT, DelDOT shall assume ownership and maintenance of said construction as outlined in this chapter.

6.7.1 PAVEMENT PLACEMENT GUIDELINES

The first lift of hot mix shall be placed no later than 18 months from the NTP or the beginning of the second winter after the NTP.

The final wearing course of hot mix on subdivision streets shall not be placed until 75% of the houses contributing traffic to those streets have been completed.

Prior to placing the pavement sections, the subgrade shall be prepared and test-rolled as detailed in DelDOT's *Standard Specifications*. If the test rolling shows the subgrade to be unstable, the contractor shall scarify, disc, aerate or add moisture and recompact the subgrade to the extent that when retested it shall be stable. If, in the opinion of the Public Works Engineer or the Construction Engineer, there are areas to be removed or undercut, they may be ordered excavated and replaced with approved material.

6.7.2 WORK HOUR RESTRICTIONS

When a developer determines that it would be best to undertake construction / reconstruction work after 9:00 pm or before 7:00 am, and such work is to be conducted immediately adjacent to a residential neighborhood, the developer shall first ensure that residents of the neighborhood are notified in a timely fashion of the desire to undertake such work. The developer shall prepare a notification explaining the benefits and costs to the neighborhood of working under regular hours and the proposed extended hour schedule. Such notification shall include:

- A description of the proposed work to be conducted.

- The proposed use of any equipment that may cause noise.
- Vibration or odor disruptions to the neighborhood.
- An estimate of the time required to complete the project.

The developer may proceed with its extended work hours if it secures approval from a majority of the residents of the affected neighborhood.

If DelDOT determines that the proposed work (regardless of its scheduled time) will produce noise that exceeds that applicable noise ordinances of the appropriate jurisdiction, the developer shall ensure that it seeks and receives a waiver from that jurisdiction before commencing work.

If DelDOT determines that the proposed work may cause any vibration or other damage to neighboring property, the developer shall complete a pre-work survey of the potentially affected properties to determine the baseline condition of those properties. The developer shall monitor the properties during construction to ensure that any vibration or other damage is minimized. If any damage does occur, the developer is responsible to reimburse the property owners.

DelDOT may waive the provisions of this section if it is determined that any such work is necessary in order to respond effectively to an emergency caused by a natural disaster or an accident.

6.8 INSPECTION

The developer shall provide the District Engineer or his/her designee, access to all parts of the work and furnish such information and assistance as is required to make a complete and detailed inspection as described in DelDOT's current *Standard Specifications*.

During construction, the developer shall provide the District Engineer or his/her designee with at least two working days notice of all major construction activities. These activities shall include, but are not limited to, the following:

- Installation of utilities.
- Installation of drainage pipe and all major structures.
- Test rolling of the subgrade.
- Placement of base material.
- Placement of curbing.
- Placement of paving material (underground utilities must be installed and utility permits closed out prior to placement of paving and seeding).
- Installation of sidewalk.

A DelDOT Inspector must be present during these construction activities. All materials shall be inspected, tested, and approved before being incorporated in the work in accordance with DelDOT's *Standard Specifications* Section 106 – Control of Material.

All inspection of paving materials used and placement of paving materials shall be placed in accordance with the Contractor's Quality Control (QC) Plan. The Contractor's QC Plan shall be prepared in accordance with DelDOT's Special Provision 401699 – Quality Control/Quality Assurance of Hot-Mix Asphalt.

Credit for Hot-Mix Asphalt (HMA) – If the Contractor constructs any pavement that does not meet the requirements outlined in the contract documents, the developer will be required to provide DelDOT a certified check for future pavement maintenance based on the amount of pavement that does not meet the specifications. The amount of the certified check will be equal to the average bid prices of the pavement minus the cost of the pavement that does not meet the requirements of the contract documents.

$$\text{Assessment for Future Maintenance} = (\text{Tonnage of HMA in question}) \times \text{Pavement Bid Cost} \times \left[1 - \frac{\% \text{Compliant}}{100\%} \right]$$

The percent compliant is based on the procedures outlined in DelDOT's Special Provision 401699 – Quality Control/Quality Assurance of Hot-Mix Asphalt. The percent compliant is broken down into the amount of material production pay adjustment and the pavement construction pay adjustment. The material production is 70% of the pavement cost and the pavement construction is 30% of the pavement cost. The payment is calculated for each lot tested. The pay adjustment is discussed in greater detail in Special Provision 401699.

Credit for PCC – The PCC credit shall be consistent with DelDOT's *Standard Specifications* section 602.25.

The Developer shall request a final inspection when all work is complete. The District Engineer or his designee may then schedule a final inspection which shall be conducted by the District. DelDOT personnel, accompanied by the developer and/or his/her contractor, and representatives of the appropriate County Public Works or Engineers Office, shall inspect the site and determine those items of work, if any, that must be either completed, replaced or repaired.

The District Engineer shall then provide the developer with a punch list of the remaining work within ten working days. The punch list shall include required letters or documents indicated under Acceptance. Should the developer fail to request a final inspection, the District Engineer may at his sole discretion provide to the developer a punch list of the remaining work to complete the streets.

The developer shall obtain a sign-off letter from the District Engineer indicating all work is complete before the roadway is accepted into the State maintenance system.

6.8.1 INSPECTION OF CLOSED DRAINAGE SYSTEM

To assure that the storm drainage systems of subdivisions are constructed per DelDOT's

Standard Specifications prior to acceptance into the State maintenance system, a digital video inspection and report, verifying acceptability of the system, shall be required.

The procedure for inspecting closed drainage systems shall follow DelDOT's *Standard Specifications*.

6.8.2 INSPECTION FEE

Pending review and approval of the Delaware General Assembly, DelDOT shall collect inspection fees on all new commercial entrance and subdivision street construction projects, built on the public right-of-way, whether seeking State-maintenance or not. When fees are collected they shall be collected from the project developer or owner prior to the start of any aspect of entrance or street construction. The fee shall be made payable to DelDOT, at the rate of 10% of the estimated cost of construction as approved by DelDOT for the involved streets. This fee shall be valid for a period of five years from the date of the NTP. If construction is not completed within the five-year period, an annual renewal fee of one quarter the current inspection fee shall be required. This fee must be paid at the beginning of each additional year of construction. NTP with initial construction shall not be issued until DelDOT has collected the inspection fee.

If a developer fails to comply with the renewal fee requirements within 100 days of receipt of written notification, DelDOT shall initiate forfeiture of the security bond.

NTP on additional entrance or street construction projects within a development shall not be issued until all outstanding inspection fees have been collected.